

(b) a distal portion of the interlocking weave being expandable from a first generally cylindrical shape to a second expanded shape; and

E1 (c) a plurality of electrodes on the distal portion of the insulated wires, each electrode in electrical communication with a single wire, and with each wire being in electrical communication with no more than a single electrode.

219. (amended) The endocardial mapping catheter assembly of claim 18, further comprising

E2 d) an electrical plug on the proximal end of the interlocking weave, the electrical plug having a plurality of connections, each in electrical communication through one of the insulated wires to one of the electrodes.

220. (amended) The endocardial mapping catheter assembly of claim 18, [further comprising] wherein the interlocking weave further comprises a proximal non-expanding portion having a generally cylindrical shape.

10 227. (amended) An endocardial mapping catheter assembly comprising

(a) an elongated flexible lead body having an interior lumen and proximal and distal ends;

(b) at least twenty-four insulated wires in the lumen extending from the proximal to the distal end of the lead body, the wires collectively being braided together to form [forming] a wire assembly;

E3 (c) an expandable portion of the wire assembly near the distal end of the flexible lead body, the expandable portion being expandable from a first generally cylindrical shape to a second expanded shape;

(d) the majority of wires in the wire assembly each having a single electrode in the expandable portion of the wire assembly;

(e) an electrical plug on the proximal end of the flexible lead body, the electrical plug having a plurality of connections, each connection being in electrical communication with one of the wires.

22 30. (amended) An endocardial mapping catheter assembly comprising:

(a) a plurality of insulated wires surrounded by an insulating material,

E4 (b) a braid comprised of a combination of the insulated wires in an interlocking weave,

(c) a flexible material surrounding a first portion of the braid, forming a flexible lead body, the flexible material not surrounding a second portion of the braid,